

Compressed Gas Cylinder (CGC) Safety Infographic

GAS CYLINDER HAZARD

High pressure inside the cylinder may cause:

- Uncontrolled rockets or pinwheels.
- Vessels to burst, create leaks in equipment or hoses, or produce runaway reactions.

Heavy weight & large in size.

HAZARD FROM THEIR CONTENT

Flammable
Toxic
Corrosive
Oxidizing
Explosive
Asphyxiation, as inert gas can displace oxygen and reduce the concentration level in the body.

SAFETY OF COMPRESSED GAS CYLINDER

.....Accidents involving gas cylinders are often caused by:.....

Improper storage area

Incorrect installation of components

Damage to tool and/or cylinder design

Incompetence handling of gas

Unexpected gas release

Insufficient training & monitoring

Poor inspection & maintenance

Hidden damage

.....

General Safety Measures

Know the chemical & physical properties of the gases.

Only personnel trained in the proper transportation and safe use of gas cylinders should handle cylinders.

Wear proper personal protective equipment. Refer to SDS for safety information on the gas cylinder.

Clean the gas valves and fixtures from any impurities such as dust, oil or rust to avoid gas leak incident.

Store & use in well ventilated areas, away from heat or ignition sources.

Store cylinders in upright position. Cylinders must be secured by used of chains.

All cylinders must be labeled with contents and stage of use (Full/In use/Empty).

Make sure the gas regulator is properly installed and tighten.

Segregated cylinders by hazard classes while in storage.

Pressure regulators and gauges must be compatible with the cylinder valves.

Whenever a compressed gas cylinder is used, inspect the gas cylinder, gas regulator and connectors to detect any leakage or damage.

Stop pressure from the gas regulator if not in use.

DON'Ts

- Do not purchase more or larger cylinders than necessary.
- Do not permit oil or grease to contact cylinders or their valves, especially cylinders containing oxidizing gases.
- Do not use Teflon tape on cylinder or tube fitting connections.
- Do not heat the cylinder for the purpose of increasing gas pressure.
- Do not use copper fittings or tubing on acetylene tanks.
- Do not refill the cylinder on your own.

UTM
UNIVERSITY LABORATORY MANAGEMENT CENTRE

Source:

<https://www.utm.my/cmc/files/2020/04/Safety-of-Compressed-Gas-Cylinder.png>